Guiding the user for the discovery of gestures in mobile phone user interfaces

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STATEMENT OF THE PROBLEM
With the increased use of gestures in mobile phone interfaces, there is a need to communicate and teach the user to use these gestures.

What factors contribute to the discovery of new gestures and what kind of guiding is most effective in helping the user to discover new gestures?

RESEARCH QUESTIONS AND/OR HYPOTHESES
What kind of guiding functions are currently used to help users in discovering gestures?

Which of the alternatives currently used will yield to best results in guiding users for gesture discovery?

METHODS AND PROCEDURES
We will introduce ourselves to the topic of gestures in mobile phones with literature review. We then move on to document and categorize functions used in gesture guiding in the selected mobile phones. Use case test is used to measure and compare the gesture guiding functions within different user profiles.

Variables
Selected variables are speed (time it took for the user to discover the gesture), preferences (user specific preferences) and experience (user’s experience in the use of gestures). Variables are going to be controlled experimentally due to the limited number of test subjects and sampling.

Sampling
Participants for the use case are selected randomly from a specific age group. Each user will be assigned random assignment.

Instrumentation
Form survey is being used to collect and discover user’s preferences and experience.

Data collection
Use case test is used in collecting data. It will include a survey about user’s preferences and experience. Research team then observes use cases and measures the time it took to complete the specified task. Users are coded to preserve anonymity and answers are connected to the specific user code.

Data analysis
Users are coded with specified identification ID formulated by the researcher to preserve anonymity. Excel or SPSS are the tools that are going to be used in data analysis.

LIMITATIONS AND DELIMITATIONS
Following limitations have been identified. Research is very limited on several different aspects. We narrow down the possible devices to mobile phones, amount of different mobile phones, tested gestures, and age group of the users.

Following delimitations have been identified. We are focusing solely on gesture discovery on mobile phones and leave all other gesture-controlled devices out of the scope of this research. User’s experience and preferences are recorded regarding all gesture-controlled devices since previous use of gestures in other devices might affect user’s ability to discover gestures in mobile phones. We plan to use only few different mobile phones with exactly specified gesture for the use case test. This is done in order to maintain better control of selected variables due to the limited user sampling. We will select the users for the use case within specific age group in order to maintain better control of the selected variables. Literature review will be very limited due to the narrow scope of the research and limited research resources. Use case test and user form survey are only methodological procedures to be used in the research due to above-mentioned limitations.

SIGNIFICANCE
This research will refine current knowledge with specific and narrow use case test. This refinement is most likely to have methodological significance.
REFERENCES